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Fredrik Alfried Fortier

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EXAMINER

MONDT, JOHANNES P

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/568,460	Applicant(s) FORTIER, FREDRIK ALFRIED	
	Examiner JOHANNES P. MONDT	Art Unit 3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-54 is/are pending in the application.
- 4a) Of the above claim(s) 35-54 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1 Form PTO-1449</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I, Species A, claims 30-34, in the reply filed on 10/22/2008 is acknowledged. The traversal is on the ground(s) based on MPEP 806.04(f). This is not found persuasive because applicant's application is a national stage of an international application, for which MPEP Chapter 800, including 806.04(f) does not apply. Instead, as made clear in the Requirement mailed 09/23/2008, PCT Rules apply, requiring the groups, - and species, to form a single general inventive concept under rule PCT 13.1, and it was shown that they do not. Applicant fails to specifically respond to the reasons under PCT 13.1.

The requirement is still deemed proper and is therefore made FINAL.

Accordingly, claims 35-54 are herewith being withdrawn from consideration. Claims 30-34 have been examined.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. ***Claims 30-34*** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the metes and bounds of the limitation "generally cylindrical" in claim 30, lines 3-4, are vague and ill-defined (under what circumstances is the core barrel cylindrical in shape, and under which circumstances is it not?), rendering the claims indefinite.

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4. **Claims 30-34** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the metes and bounds of the limitation “generally vertically” (claim 30, line 4) are vague and ill-defined (under what circumstances is the core barrel cylindrical in shape, and under which circumstances is it not?), rendering the claims indefinite.

5. **Claims 30-34**, through claim 30, recite the limitation “the vertical loads” in line 7 of claim 30. There is insufficient antecedent basis for this limitation in the claim.

6. **Claims 30-34**, through claim 30, recite the limitation “the vertical loads” in line 7 of claim 30. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claim 30** is rejected under 35 U.S.C. 103(a) as being unpatentable over Published Patent Specification by Williams et al (GB 889,758) in view of Holmes (US 5,772,420).

N.B.: The rejection is provided subject to the multiple indefiniteness, under 35 USC 112, 2nd paragraph, as explained above in sections 2-6, to the best of examiner’s understanding.

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Williams et al teach a support arrangement that includes

a vessel in the form of a core barrel 12 of a gas- cooled nuclear reactor (lines 37-46 of first page; Figures 1-2), capable of being operated at high temperature, which is housed within a reactor pressure vessel 11 (lines 47-53 of page 1), the core barrel being generally cylindrical in shape and having an axis which extends generally vertically (see Figure 2: said axis being an axis of symmetry of core barrel 12 in the Figure 2, which happens to be the vertical symmetry axis of the entire Figure 2);

a single vertical support 14 (lines 47-53 of page 1) including upper and lower support members connected to the core barrel 12 and the reactor pressure vessel 11, resp. (two ends of 14 are connected, one upper portion of 14 to the core barrel 12, the other lower portion to the reactor pressure vessel 11: see Figure 1) between which (inherently (the) vertical loads are transmitted because the connections between the single vertical support and both core barrel and reactor pressure vessel have a component in the vertical direction when vertical is interpreted to be parallel to the height direction of the Drawing of Figure 1; while said upper and lower are relatively displaceable defining oppositely disposed contact surfaces centrally positioned about the axis, given a sufficiently strong displacement force; and

lateral support means *capable* of providing support to the core barrel and including a plurality of circumferentially spaced upper lateral supports 20/19/17/15 each including a set of inner and outer lateral support members (bearing pads 15 and 17, resp.) (Figures 1-2 and lines 54-65 of page 1) connected to the core barrel 12 and pressure reactor vessel 11, resp. (loc.cit.).

Williams et al do not necessarily teach the limitation “roller element sandwiched between the inner and outer lateral support members” as recited in claim 30. However, said inner and outer lateral support members 15 and 17 are, in Williams et al, allowed to slide one with respect to the other (see lines 54-65, page 1), and hence it would have been obvious to interpose a roller between the sliding elements 15 and 17 so as to reduce friction, as is evidenced, for instance, by Holmes, who, in a patent addressing a problem of contact between contacting bearing surfaces (see abstract), hence analogous the technical feature of sliding bearing elements in Williams et al, teaches that friction can be reduced by providing roller contact between the bearing surfaces (see column 6, lines 23-26). Motivation to include the teaching by Holmes in this regard derives immediately from the advantage as taught by Holmes to reduce friction between contacting, sliding parts.

9. **Claims 31-34** are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams et al and Holmes as applied to claim 30 above, and further in view of Crook (Patent Specification GB 808, 739).

As detailed above, claim 30 is unpatentable over Williams et al in view of Holmes.

Neither Williams et al nor Holmes teach the further limitations defined by either claims 31-34. However, it would have been obvious to include said further limitations in view of Crook, who, in a patent document on “improvements relating to supports for large structures” (see title and page 1), hence analogous to the problem of the single vertical support for supporting the weight of the core barrel in Williams et al, teaches the contact surfaces to “movable load supporting surfaces in mutual contact with one another both

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of substantially cylindrical form” (page 1, lines 49-62), i.e., at least one, - in fact: both (see also page 2, lines 34-40), of the two surfaces being curved, so as “to permit the rolling motion of the two surfaces to take place” (loc.cit.). Furthermore, with regard to claim 3, the axes of the cylinders are at right angles to each other: hence regardless of which reference is used to define convex and concave, one of said contact surfaces is concave, the other convex (see Figures 1-3); while with regard to claim 34 it is noted that Crook teaches that “the radius on the cylindrical supporting surfaces on the brackets and foundation members should preferably have a large value” (Crook, page 1, line 129 – page 2, line 2). However, Crook also teaches that the ordering of the values of the radii of curvature of the load supporting surfaces is a matter of design as they can be interchanged (see Crook, page 2, lines 3-11); hence, either way, Crook teaches the further limitation of claim 34 as well. *Motivation* to include the teaching by Crook in this regard in the invention by Williams derives from the teaching by Crook of reduced material stress due to the cross-cylindrical form of the load-supporting surfaces (Crook, page 1, second column, lines 63-81).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHANNES P. MONDT whose telephone number is (571)272-1919. The examiner can normally be reached on 7:30 - 17:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack W. Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Johannes P Mondt/
Primary Examiner, Art Unit 3663